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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,087	06/08/2001	Per Johansson	040000-748	9382

7590 07/26/2005

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EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/876,087

Applicant(s)

JOHANSSON ET AL.

Examiner

Robert W. Wilson

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-37, 41 and 42 is/are allowed.
- 6) ☒ Claim(s) 1-6, 25-27, 38 and 43 is/are rejected.
- 7) ☒ Claim(s) 7-24, 28-30, 39, 40 and 44-48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/8/01, 10/2/02, & 9/26/02
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, & 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et. al. (Patent Pub No.: 2003/0149794 A1) .

Referring to claim 1, Morris teaches: Figure 1 shows a network which allows for routing information between piconets or subnetworks 10 and 20 respectively. 10 per Fig 1 is a piconet or 2<sup>nd</sup> subnetwork formed around M2 (second master) with a minimum number of connections. 10 & 20 per Fig 1 are a plurality of piconets or subnetworks. S4 enables sending network traffic between the S1 or S2 or S6 (first node) to S3 or S5 (2<sup>nd</sup> node). S4 connects the two piconets or subnetworks thereby creating a maximum connectivity network.

Morris does not expressly call for: establishing a traffic network between the first node and the second node but teaches that S4 understands the protocols between S1 or S2 or S6 (first node) to S3 or S5 (2<sup>nd</sup> node) per Pg 7 Para [0017].

It would have been obvious to one of ordinary skill in the art at the time of the invention that because S4 understand the protocols between S1 or S2 or S6 (first node) to S3 or S5 (2<sup>nd</sup> node) per Pg 7 Para [0017] or establishing a traffic network between the first node and the second node

In addition Morris teaches:

Regarding claim 2, Figure 1 shows nodes of maximum connectivity

Regarding claim 3, nodes can decide not to participate or suspend per Pg 2 Para [0018]

Regarding claim 4, M1 & M2 per Fig 1 or more than one master.

Regarding claim 5, Figure 1 shows one master per subnet

Regarding claim 6, The applicant broadly claims "high speed node" Figure 1 shows a piconet which the examiner interprets that the node intercommunicate in a high speed mode.

Regarding claim 25, each of the nodes list to advertisements per Pg 2 Para [0016]-[0017] in order to determine if a node can be reached.

Regarding claim 26, It would have been obvious to one of ordinary skill in the art at the time of the invention that a node would not hear an advertisement if it was not within radio range per Pg 2 Para [0016]-[0017]

Art Unit: 2661

Regarding claim 27, each of the nodes list to advertisements per Pg 2 Para [0016]-[0017] in order to determine if a node can be reached or determining maximum connectivity.

3. Claims 38 & 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over An et. al.

(Patent No.: 6,813,272) .

Referring to claim 38, An teaches: A method of establishing a traffic route network in an ad-hoc network between a source and destination node per col. 2 line 31-62. The source node sends a request to an adjacent node or intermediate node or candidate node (paging). The adjacent node forward the request to another adjacent node or intermediate node. Finally the destination node receives the request along with a list of all intermediate nodes and a response is sent back to the source node with a list of all of the destination nodes or scanning per col. 2 lines 31-62. The source node can utilize the list of all nodes to communicate with the destination node upon receipt of the list per col. 2 lines 31-62

An does not expressly call for: scanning but teaches waiting for receipt of the list of all nodes from the destination node per col. 2 lines 31-62

It would have been obvious to one of ordinary skill in the art at the time of the invention that waiting for receipt of the list of all nodes from the destination node per col. 2 lines 31-62 performs the same function as scanning.

Referring to claim 43, An teaches: A method of establishing a traffic route network in an ad-hoc network between a source and destination node per col. 2 line 31-62. The source node sends a request to an adjacent node or intermediate node or candidate node (selecting). The adjacent node forward the request to another adjacent node or intermediate node. Finally the destination node receives the request along with a list of all intermediate nodes per col. 2 lines 31-62.

An does not expressly call for: including the first candidate node to a candidate node list and forwarding the candidate node list to the next node but teaches finally the destination node receives the request along with a list of all intermediate nodes per col. 2 lines 31-62.

It would have been obvious to one of ordinary skill in the art at the time of the invention that An is forwarding the candidate node in the list in order for the destination node to received a list of all intermediary nodes.

### ***Allowable Subject Matter***

2. The present invention is directed to a first node paging a master node with the highest number of slave nodes among all master nodes wherein the master node is not a member of the same sub-network and the first node. The first node sends a request to the master node to become a member of the subnetwork and joins the master node sub-network if the request is granted.

Art Unit: 2661

The closest prior art is Eiden et. al. (U.S. Patent No.: 6,829,487) . Eiden discloses: A user node or first node applies for membership or pages members of an existing group by sending an application or page to the other members. The members decide whether to accept the user node and send feedback or grant. The user node then decides to join.

The closest prior art Eiden does not disclose, anticipate, or render obvious the following claim limitations:

“paging, from the first node, a master node with the highest number of slave nodes among all master nodes which are detected by the first node” as claimed in claim 31.

“sending a message from a slave node informing the slave node’s master node of the number of nodes connected in detected sub-networks and the identification number of the nodes in the detected sub-networks as claimed in claim 35.

“paging form a first node, a master node, wherein the first node and the master node are not members of the same sub-networks and wherein the first node is a master node: obtaining the address of all slave nodes of the paged master node and merging the sub-networks if the first node can reach all of the slave nodes of the paged master node as claimed in claim 36.

“establish a candidate node rating if the candidate node can reach the source node or any other candidate nodes” as claimed in claim 41.

In addition:

Claims 32-34 are allowable because they depend upon claim 31.

Claim 37 is allowed because it depends upon claim 36.

Claim 42 is allowed because it depends upon claim 41.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Art Unit: 2661

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 38 is rejected under the judicially created doctrine of double patenting over claims 5, 6, & 10 of U. S. Patent No. 6,751,200 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Referring to claim 38, claims 5 & 10 of U. S. Patent No. 6,751,200 teaches broadcasting a discovery request from a source node in an ad-hoc network or paging in order to determine if a timely response has been from a plurality of nodes in order to determine a route or scanning. Claim 6 of U. S. Patent No. 6,751,200 teaches: upon a timely receipt of a response determination of a route or establishing a route.

Claim 10 of U. S. Patent No. 6,751,200 does not expressly call for: scanning procedure but teaches waiting for a time response.

It would have been obvious to one of ordinary skill in the art at the time of the invention that waiting for a timely response performs the same function as scanning.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968).

See also MPEP § 804.

### ***Claim Objections***

6. Claims 7-24, & 28-30, 39-40, & 44-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2661

***Drawings***

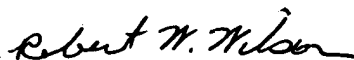
7. The examiner also objects to the Figures 1-34 received on 11/06/01 because element numbers without names are present in the figures. The examiner recommends that the applicant add the appropriate element name to the element number.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571/272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert W Wilson  
Examiner  
Art Unit 2661

RWW  
7/19/05



BOB PHUNKULH  
PRIMARY EXAMINER